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STATUTORY INSTRUMENTS

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**2018 No. 482**

**RADIOACTIVE SUBSTANCES  
PUBLIC HEALTH**

**The Ionising Radiation (Basic Safety Standards)  
(Miscellaneous Provisions) Regulations 2018**

<i>Made</i>	- - - -	<i>16th April 2018</i>
<i>Laid before Parliament</i>		<i>17th April 2018</i>
<i>Coming into force</i>	- -	<i>8th May 2018</i>

The Secretary of State makes these Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972(1).

The Secretary of State is a Minister designated for the purposes of that section of that Act in relation to basic safety standards for health protection of the general public and workers against the dangers of ionising radiation(2).

**PART 1**

**General**

**Citation and commencement**

1. These Regulations may be cited as the Ionising Radiation (Basic Safety Standards) (Miscellaneous Provisions) Regulations 2018 and come into force on 8th May 2018.

**Interpretation**

2. In these Regulations—

“Basic Safety Standards Directive” means Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising

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- (1) 1972 c.68. Section 2(2) was amended by the Legislative and Regulatory Reform Act 2006 (c. 51), section 27(1)(a), and the European Union (Amendment) Act 2008 (c. 7), section 3(3). There are other amendments to section 2 not relevant to these Regulations. Under section 57 of the Scotland Act 1998 (c. 46), despite the transfer to the Scottish Ministers of functions in relation to implementing obligations under Community law in respect of devolved matters, the function of the Secretary of State in relation to implementing those obligations continues to be exercisable by the Secretary of State as regards Scotland.
- (2) See designation order S.I. 1991/2289. The order was revoked for certain purposes not relevant to these Regulations.

radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom<sup>(3)</sup>;

“building material”<sup>(4)</sup>, “effective dose”<sup>(5)</sup>, “emergency”<sup>(6)</sup>, “equivalent dose”<sup>(7)</sup>, “ionising radiation”<sup>(8)</sup>, “orphan source”<sup>(9)</sup> and “practice”<sup>(10)</sup> have the same meaning as in the Basic Safety Standards Directive.

## PART 2

### Land and other exposure situations

3. In this Part, “appropriate minister” means—
- (a) in relation to a function so far as exercisable within devolved competence within the meaning of the Scotland Act 1998<sup>(11)</sup>, the Scottish Ministers;
  - (b) in relation to a function so far as exercisable within devolved competence within the meaning of the Government of Wales Act 2006<sup>(12)</sup>, the Welsh Ministers;
  - (c) in relation to a function so far as it deals with a transferred matter within the meaning of the Northern Ireland Act 1998<sup>(13)</sup>, a Northern Ireland department;
  - (d) otherwise, the Secretary of State.

### Measures to be taken in relation to exposures from land

- 4.—(1) This regulation applies where—
- (a) land is contaminated as a result of the after-effects of an emergency, past practice or past work activity; and
  - (b) the level of exposure of members of the public to ionising radiation cannot be disregarded from a radiation protection point of view.
- (2) But this regulation does not apply while any part of an emergency plan is in effect in relation to the land in accordance with either of the following provisions—
- (a) paragraph (2) of regulation 13 (implementation of emergency plans) of the Radiation (Emergency Preparedness and Public Information) Regulations 2001<sup>(14)</sup>;
  - (b) paragraph (2) of regulation 13 (implementation of emergency plans) of the Radiation (Emergency Preparedness and Public Information) Regulations (Northern Ireland) 2001<sup>(15)</sup>.
- (3) The appropriate minister must set a reference level for the land, taking into account—
- (a) principles of radiological protection and societal criteria; and
  - (b) the range of reference levels set out in Annex I to the Basic Safety Standards Directive.

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(3) OJ No L 13, 17.01.2014, p 1.

(4) See Article 4.9 of the Basic Safety Standards Directive (the Directive).

(5) See Article 4.25 of the Directive.

(6) See Article 4.26 of the Directive.

(7) See Article 4.33 of the Directive.

(8) See Article 4.46 of the Directive.

(9) See Article 4.60 of the Directive.

(10) See Article 4.65 of the Directive.

(11) 1998 c.46. See section 54.

(12) 2006 c. 32. See section 58A, inserted by the Wales Act 2017 (c. 4), section 19.

(13) 1998 c.47. See section 4. There are amendments to section 4 not relevant to these Regulations.

(14) S.I. 2001/2975. There are amendments to regulation 13 not relevant to these Regulations.

(15) S.R. (N.I.) 2001 No. 436.

(4) Before the resumption of habitation, or economic or social activities, on the land, the appropriate minister must ensure that appropriate arrangements are established for the on-going control of exposure of members of the public to ionising radiation, with the aim of establishing living conditions that can be considered as normal, including—

- (a) the establishment of an infrastructure to support continuing self-help protective measures in the affected area, which may include the provision of information, advice and monitoring;
- (b) remediation measures; and
- (c) the delineation of the area.

(5) In this regulation, “reference level” means the level of effective dose or equivalent dose above which optimisation of radiation protection for members of the public must be prioritised.

### **Provision of information concerning public exposures from radioactive contaminated land**

5.—(1) In this regulation, “designated site” means—

- (a) land which has been designated by a local authority as a special site under section 78C of the Environmental Protection Act 1990(16) as applied with modifications by the Radioactive Contaminated Land (Modification of Enactments) (England) Regulations 2006(17) in relation to land in England and as applied with modifications by the Radioactive Contaminated Land (Modification of Enactments) (Wales) Regulations 2006(18) in relation to land in Wales;
- (b) land which has been designated by the Scottish Environment Protection Agency as a special site under section 78BC of the Environmental Protection Act 1990 as applied with modifications by the Radioactive Contaminated Land (Scotland) Regulations 2007(19);
- (c) land which has been identified by the Chief Inspector in accordance with regulation 3(2) of the Radioactive Contaminated Land Regulations (Northern Ireland) 2006(20).

(2) The appropriate minister must ensure that information on the following matters is provided to members of the public exposed to ionising radiation from a designated site—

- (a) the potential health risks of their exposure; and
- (b) the available means for reducing their exposure.

(3) The appropriate minister must, for each designated site, publish guidance concerning the management of exposure to ionising radiation from that site.

### **Measures to be taken in other exposure situations**

6.—(1) This regulation applies where the Scottish Ministers, the Welsh Ministers, a Northern Ireland department or the Secretary of State receives evidence about either of the following situations

- (a) the indoor exposure of members of the public to ionising radiation from building material incorporated into buildings or parts of buildings which cannot be disregarded from a radiation protection point of view;

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(16) 1990 c.43. Sections 78A to 78YC were inserted by section 57 of the Environment Act 1995. There are amendments to these sections not relevant to these Regulations.

(17) S.I. 2006/1379 as amended by S.I. 2007/3245, S.I. 2008/520 and S.I. 2010/2147. S.I. 2016/562 also makes amendments which are not yet in force.

(18) S.I. 2006/2988, as amended by S.I. 2007/3250, S.I. 2008/521 and S.I. 2010/2146. S.I. 2016/562 and S.I. 2018/429 also make amendments which are not yet in force. There are other amendments which are not relevant to these Regulations.

(19) S.S.I. 2007/179, as amended by S.I. 2007/3240, S.S.I. 2009/202 and S.I. 2010/2153. S.I. 2016/562 also makes amendments which are not yet in force. S.S.I. 2007/179 modifies the Act by inserting section 78BC.

(20) S.R. (N.I.) 2006 No.345 as amended by S.R. (N.I.) 2007 No. 3236 and S.R. (N.I.) 2010 No. 2145.

- (b) the exposure of members of the public to ionising radiation from contaminated commodities which cannot be disregarded from a radiation protection point of view.
- (2) The appropriate minister must ensure that measures are taken to identify and evaluate the level of exposure of members of the public to ionising radiation.
- (3) The appropriate minister must ensure that a strategy is in place to manage, as appropriate, any health risks identified as a result of the measures taken under paragraph (2).
- (4) The appropriate minister must ensure that the strategy—
  - (a) sets objectives;
  - (b) sets an appropriate reference level; and
  - (c) is developed and implemented taking into account the requirements of Article 102 of the Basic Safety Standards Directive.
- (5) In this regulation—
  - “contaminated commodities” means commodities which incorporate—
    - (a) radionuclides from land contaminated as a result of the after-effects of an emergency, past practice or past work activity; or
    - (b) naturally occurring radionuclides;but does not include food, drinking water and animal feeding stuffs;
  - “reference level” means the level of effective dose, equivalent dose or activity concentration above which optimisation of radiation protection for members of the public must be prioritised.

## PART 3

### Building material

#### **Building material**

- 7.—(1) Where the Secretary of State is aware that relevant building material has been identified in the United Kingdom, the Secretary of State must ensure that before the relevant building material is placed on the market—
- (a) the activity concentrations of any radionuclides specified in Annex VIII to the Basic Safety Standards Directive that are in the relevant building material are determined; and
  - (b) information is provided to the person nominated by the Secretary of State for this purpose, if requested by that person, on—
    - (i) the activity concentrations determined in accordance with sub-paragraph (a); and
    - (ii) the corresponding activity concentration index (calculated using the formula set out in Annex VIII to the Basic Safety Standards Directive and such other relevant factors as are specified in that Annex).
- (2) Where the relevant building material is liable to give gamma radiation doses exceeding 1 millisievert per year, the Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each exercise their functions to ensure that such measures are taken as they each consider appropriate for the protection of members of the public, which may include imposing specific requirements in relevant building codes or restrictions on the use of such material.
- (3) In this regulation “relevant building material” means building material that—
- (a) emits gamma radiation; and

- (b) is of concern from a radiation protection point of view, taking into account the indicative list of types of building material in Annex XIII to the Basic Safety Standards Directive.

## PART 4

### Radon

#### **Indoor exposure to radon**

**8.**—(1) The Secretary of State must set a reference level for the exposure of members of the public to indoor radon concentrations. The reference level for the annual average radon activity concentration in air must not exceed 300 becquerels per cubic metre.

(2) In this regulation, “reference level” means the level of activity concentration above which optimisation of radiation protection for members of the public must be prioritised.

#### **Requirement to publish information regarding radon**

- 9.** The Secretary of State must publish information on—
- (a) indoor radon exposure and associated health risks;
  - (b) the importance of performing radon measurements; and
  - (c) the technical means available for reducing existing radon concentrations.

#### **Radon action plan**

**10.**—(1) The Secretary of State must establish a national plan (“the action plan”) addressing long-term health risks from any source of radon ingress (whether from soil, building material or water) to—

- (a) dwellings;
  - (b) buildings with public access; and
  - (c) workplaces.
- (2) The action plan must—
- (a) take into account relevant issues identified in Annex XVIII to the Basic Safety Standards Directive; and
  - (b) be updated at intervals of no more than five years.

#### **New buildings**

**11.** The Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each exercise their functions to ensure that appropriate measures are in place to prevent radon ingress into new buildings.

#### **Areas of high radon concentration**

**12.** The Secretary of State must identify areas where the radon concentration (expressed as an annual average) in a significant number of buildings is expected to exceed the relevant reference level set under regulation 8.

## PART 5

### Orphan sources

#### **Identification of orphan sources**

**13.** The Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each exercise their functions to ensure that arrangements are made for—

- (a) raising general awareness of the possible occurrence of orphan sources and potential hazards; and
- (b) issuing guidance for persons who suspect, or have knowledge, of the presence of an orphan source on informing the relevant minister and on the actions to be taken.

#### **Action to recover orphan sources left behind by past practices**

**14.—(1)** The Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each exercise their functions to ensure that an appropriate course of action is organised to recover orphan sources left behind from past practices.

(2) The course of action may include the management, control and disposal of the orphan sources as well as the review of relevant documentation.

16th April 2018

*Richard Harrington*  
Parliamentary Under Secretary of State  
Department for Business, Energy and Industrial  
Strategy

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## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations are part of a package of measures to transpose Council Directive 2013/59/Euratom laying down basic safety standards for protection against the dangers arising from exposure to ionising radiation and repealing Directives 89/618/Euratom, 90/641/Euratom, 96/29/Euratom, 97/43/Euratom and 2003/122/Euratom (“the Basic Safety Standards Directive”). Most of the transposition measures are being dealt with by amending or replacing existing statutory instruments. These Regulations transpose provisions of the Basic Safety Standards Directive that cannot be transposed within existing statutory regimes.

Part 2 of the Regulations imposes duties on the “appropriate minister”, which is defined in regulation 3 as the Scottish Ministers, the Welsh Ministers or a Northern Ireland department (where the function to be exercised is devolved, or the Secretary of State (in relation to England or, where the function is reserved, the United Kingdom as a whole). The duties are to ensure that certain functions are carried out in relation to exposures from contaminated land and exposures from buildings or contaminated commodities.

Regulation 4(3) requires the appropriate minister to ensure that reference levels are set for land which cannot be disregarded from a radiation protection point of view following radioactive contamination as a result of an emergency or past practice or past work activity. Regulation 4(4) also requires the appropriate minister to put in place appropriate arrangements to ensure that exposure from ionising radiation is controlled on land which has been contaminated as a result of an emergency or past practice or past work activity. These arrangements are intended to establish normal living conditions and must be in place before habitation or economic or social activities can be resumed on the land.

Regulation 4(2) excludes these duties while action is still required to be taken on the land under emergency plans set out in the Radiation (Emergency Preparedness and Public Information) Regulations 2001 (S.I. 2001/2975) or the Radiation (Emergency Preparedness and Public Information) Regulations (Northern Ireland) 2001 (S.R. (N.I.) 2001/436).

Regulation 5 places a duty on the appropriate minister to ensure that specified information is provided to members of the public who have been exposed to ionising radiation from a designated site.

Regulation 6 places a duty on the appropriate minister to ensure certain steps are taken where evidence is received by any of the Scottish Ministers, the Welsh Ministers, a Northern Ireland department or the Secretary of State concerning indoor public exposure from building material which has been incorporated into buildings or concerning public exposure to contaminated commodities. The steps include measures to identify and evaluate the level of risk to the public, and the establishment of strategies to ensure that identified risks are managed. Any strategies which are established must set objectives, set appropriate reference levels and be developed and implemented taking into account the requirements of Article 102 of the Basic Safety Standards Directive.

Regulation 7 requires certain steps to be taken where building material containing potentially concerning levels of radioactivity is present in the United Kingdom. The Secretary of State must ensure that the activity concentrations of the building material are determined before it is placed on the market. Where the gamma radiation dose liable to be given by the building material is more than 1 millisievert per year, the Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each exercise their functions to take appropriate measures, for example by restricting the use to which the building material can be put.

Regulation 8 concerns indoor exposure to radon, and requires the Secretary of State to establish reference levels to inform decisions and actions relating to public radon exposure. The Secretary of State is also required by regulation 9 to publish information on radon, its health risks, its measurement, and how radon levels may be reduced.

Regulation 10 requires the Secretary of State to establish a national radon action plan that addresses the risks of buildings being penetrated by radon. The plan must be updated at least once every five years and must take into account various specific considerations listed in Annex XVIII to the Basic Safety Standards Directive.

Regulation 11 requires measures to be in place to prevent radon ingress into new buildings. The duty is imposed on each of the Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State. Regulation 12 requires the Secretary of State to identify areas subject to high radon concentrations in buildings.

Regulations 13 and 14 concern orphan sources. An orphan source is a particular source of radiation which should be but is not under regulatory control, for example because it has been lost or stolen. The Scottish Ministers, the Welsh Ministers, a Northern Ireland department and the Secretary of State must each arrange for the raising of awareness about orphan sources, and issue guidance on what should be done about orphan sources. They must also ensure that an appropriate course of action is organised to recover orphan sources.

A transposition note is submitted with the Explanatory Memorandum which is available alongside the instrument on [www.legislation.gov.uk](http://www.legislation.gov.uk). A full impact assessment has not been produced for this instrument as no, or no significant, impact on the private, voluntary or public sector is foreseen.